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## Long-lived particles at future collider experiments

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The recently-concluded European Strategy process and the currently ongoing US Planning Exercise (aka Snowmass) provide a good opportunity to look at the landscape of beyond-Standard-Model long-lived particle (LLP) searches at future experiments.

After a high-level overview of the landscape of studies that have been planned for Snowmass, including physics beyond colliders, I will touch two main aspects that are particularly relevant for collider experiments and have emerged in the last years.

Firstly, additional external detectors can complement existing collider and beam-dump experiments in probing a much wider parameter-space for a large variety of BSM models that include LLPs in their phenomenology. Secondly, the signatures of LLPs in the detectors can be substantially different from promptly-produced BSM signatures and the current collider detectors have not been designed with requirements that take this fully into account; it is therefore important to think ahead in the design of future collider experiments to identify which requirements might differ or need to be additionally imposed in order to fully exploit the rich phenomenology behind models that include LLPs.

I will review the state-of-the art on these two aspects, focusing on the items that have been most recently planned to be pursued in the context of the Snowmass effort.

**Presenter:** PAGAN GRISO, Simone (Lawrence Berkeley National Lab. (US))